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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,440	12/04/2003	I-Jin Yang	B-5315 621542-5	2113

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EXAMINER

BURCH, MELODY M

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/729,440

Applicant(s)

YANG, I-JIN

Examiner

Melody M. Burch

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7 and 9-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1,3-7 and 9-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation of the step preventing an enlarged portion of the low pressure piston part from moving beyond an end of the sleeve and the limitation of the step projecting in an inwardly direction towards the low pressure piston part as recited in claims 20 and 21, respectively, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. It is unclear from the drawings how the step which Examiner has interpreted as the portion shown in the area of the lead line of 60 in figure 2 will prevent the low pressure piston part from moving beyond the end of the sleeve. Also, Examiner interprets an inwardly directed projecting object to be one similar to element 61. In light of the interpretation, it appears that the step is outwardly projecting. Clarification is required. See 112 rejection section below.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

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consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 11 is objected to because of the following informalities: in the last line of claim 11 the phrase "the groove" should be changed to --the at least one groove--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Also, Examiner interprets an inwardly directed projecting object to be one similar to element 61. In light of the interpretation, it appears that the step is outwardly projecting. Clarification is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3-7, 9, 10, 12, and 14-21 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6082244 to Siegel et al.

Re: claims 1, 20, and 21. Siegel et al. show in figure 1 a pump for antilock brake system comprising a motor described in col. 3 lines 45-46 and including element 56, portion 56 of the motor installed in a bore shown surrounding elements 20 and 56 which is provided in a predetermined portion of a modular block 16, a plug 62 mounted to an end of the bore to be opposite to the motor, a piston 20,60 provided in the bore to reciprocate in the bore by the motor, and a sleeve 18 fitted into the bore to guide a reciprocating motion of the piston.

Siegel et al. show the limitation wherein the piston comprises a low-pressure piston part 20 provided at a predetermined position which is adjacent to the motor and a high pressure piston part 60 extending from the low-pressure piston part toward the plug, and an inlet path 30 provided between the low-pressure piston part and the high pressure piston part, and along the high pressure piston part as shown and the sleeve having an outer circumferential surface thereof, a step, as shown in the area outside of the lead line of number 18 so that the sleeve surrounds an outer circumferential surface of the low-pressure piston part and an outer circumferential surface of the high pressure piston part while being fitted into the plug and is mounted in the bore as shown.

Re: claim 3. Siegel et al. show in figure 1 the limitation wherein the sleeve has, around an outer circumferential surface thereof, a step shown above and to the right

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and left of element 70 so that the sleeve is fitted into the plug in a press-fitting method as described in col. 3 lines 53-54 while surrounding an outer circumferential surface of the high-pressure piston part, and is mounted in the bore along with the plug as shown.

Re: claims 4, 9, and 17. Siegel et al. show in figures 1 and 3 a stop flange 100 which is provided at an end of the sleeve to be bent toward the high-pressure piston part.

Re: claim 5. Siegel et al. show in figure 1 a stop part 100 which is provided at an end of the sleeve, the stop part being thinner than the sleeve to be bent toward the high pressure piston part.

Re: claim 12. Siegel et al. show in figure 1 the limitation wherein the (the end of the tapered part of the) low pressure piston part (near the motor element 56) has a smaller diameter than the high pressure piston part (particularly the portion of the high pressure piston part shown at the end of the lead line of number 60).

Re claim 6 in an alternate interpretation. In an alternate interpretation the low pressure piston part can be shown in the area of element 60 and the high pressure piston part in the area of element 20. Accordingly, the low pressure piston part has a first diameter along a major portion of its length and the high pressure piston part has a second diameter along a major portion of its length, the first diameter being smaller than the second diameter as shown in figure 1.

Re: claims 7, 14, and 19. Siegel et al. show in figure 1 an inlet check valve 38 which is provided at an end of the high pressure piston part, the inlet check valve and the piston being integrally assembled with the sleeve as disclosed in col. 4 line 61 – col.

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5 line 9 and mounted in the bore as disclosed in col. 5 lines 10-11. Examiner notes that the term "integral" is sufficiently broad to embrace constructions uniting by such means as fastening and welding. In re Hotte, 177 USPQ 326, 328 (CCPA 1973). Examiner notes that the claim is directed to a method of making the pump product and further notes that the MPEP section 2113 states that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Re: claims 10 and 16. Siegel et al. show in figure 1 an inlet hole 74 which is provided on the sleeve 12 at a position corresponding to an intermediate part between the low pressure piston part (the left surface of the low pressure piston part) and the high pressure piston part (the right surface of the high pressure piston part) to communicate with the inlet path 30.

Re: claim 15. Siegel et al. show in figure 1 the limitation wherein the low pressure piston part and the high pressure piston have a same outer diameter (particularly the untapered portion of the low pressure piston part and the portion shown in the area of the lead line of number 60 of the high pressure piston part) and are fitted in to the sleeve having a linear inner circumferential surface, as best understood.

Re: claim 18. Siegel et al. show in figure 1 a stop ring 58 which is fitted into a space between an end (the axially bottom end) of the sleeve and the low pressure piston part or in another interpretation in a space between an end (the radially innermost end) of the sleeve and the (radially outermost end) of the low pressure piston part.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siegel et al. in view of US Patent 6070951 to Nakazawa.

Siegel et al. fail to show or suggest the limitation of at least one groove which is provided around the outer circumferential surface of the sleeve so that a sealing member is fitted over the groove.

Nakazawa teaches in figure 2 a pump comprising at least one groove shown surrounding element 46d which is provided around the outer circumferential surface of a sleeve 46 so that a sealing member 46d is fitted over the groove.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the sleeve of Siegel et al. to include at least one groove surrounding a sealing member, as taught by Nakazawa, in order to provide a means of limiting the entrance of debris and limiting fluid leakage.

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9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siegel et al.

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Re: claim 13. Siegel et al. show in figure 1 a low pressure piston part 20 and high pressure piston part 60 connected to each other, but do not specifically disclose that the parts are separately produced. In re Dulberg, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961) (The claimed structure, a lipstick holder with a removable cap, was fully met by the prior art except that in the prior art the cap is "press fitted" and therefore not manually removable. The court held that "if it were considered desirable for any reason to obtain access to the end of [the prior art's] holder to which the cap is applied, it would be obvious to make the cap removable for that purpose."). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the two piston parts to have been separately produced to provide distinct strength characteristics corresponding to the differing pressures subjected to each part. Examiner notes that the claim is directed to a method of making the pump product and further notes that the MPEP section 2113 states that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Response to Arguments

10. Applicant's arguments filed 2/28/05 have been fully considered but they are not persuasive.

Applicant argues that Siegel's low pressure piston part 20 is not surrounded by a sleeve 18 and that sleeve 18 does not have a step. Examiner notes that sleeve 18 also includes element 12. As shown in figure 1 of Siegel the sleeve (elements 12 and 18) surrounds the bottom portions of the low pressure piston part 20 shown immediately above port 32 and surrounds all portions of the high pressure piston part 60.

Examiner also maintain that Siegel shows the sleeve having a step or protrusion shown surrounding the lead line of number 18 to the same extent that Applicant shows a sleeve 60 having a step, as best understood, shown in figure 2 in the area of the lead line of number 60.

Applicant further argues that the sleeve of Siegel fails to come in contact with either the low or the high-pressure portion of the cylinder. Examiner notes that Applicant's argument is more specific than the claim language.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mmb 4/7/05
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April 7, 2005

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